

WorshipAVL

A/V | LIGHTING | SOUND REINFORCEMENT | RECORDING | STAGE SOUND | BROADCAST

May-June 2017

DEFYING IMPOSSIBILITY

Sound atop the Stairway from Heaven

LIGHTING CONSOLES

Analysing application:
a buying guide

CREATIVITY IN WORSHIP

Enhancing sound and visuals

WIRELESS WORLDWIDE

Adapting to global
RF spectrum change

PROBLEM?

$$\delta = mc^2$$

where $m = \mathbf{M}$ (processing) and $c = \mathbf{C}$ (power) and $\delta = ?$

PROBLEM SOLVED.

Delta 80 DSP Processing Power Amplifier



Delta 100 Network Audio Power Amplifier with @Dante

MC²
AUDIO

#powermeetsprocessing

Refurbishing the mother church



Singapore's Life Bible-Presbyterian Church

SINGAPORE: Built in 1962, the reformed Life Bible-Presbyterian Church (LBPC), located off Dunearn Road in Singapore, was the first Bible-Presbyterian church in South East Asia. As the mother church of Bible-Presbyterian churches in the region, the 1,000-capacity building is open at all times to its worshippers. Although the Sunday services largely consist of spoken word sermons and prayers, music is performed on a piano and an organ with the backing of a choir.

The pre-existing loudspeaker system was in need of replacement and, as such, local suppliers and SIs were invited to tender for the project. Following an evaluation, the church committee selected a Norton Audio loudspeaker system demonstrated by Concept Systems Technologies. The distributed system in the sanctuary is served by two sets of left-right 112 12-inch coaxial speakers, whilst four NF8 8-inch coaxial models are employed as

rear delays and front-fills. The upper gallery area requires its own dedicated audio speakers in the form of six NF8 and two 112 speakers.

Powered by three Norton Audio ND2 and five Electro-Voice Q99 amplifiers, additional loudspeaker management is enabled courtesy of an EV Netmax N8000 16x16 digital audio processor. Located on the upper gallery above the stage, the control room houses the racked equipment, including a Furman CN3600SE power conditioner/sequencer, enabling powering on and off of the system.

Six channels of Shure SLX and LX wireless microphones are available for the pastors and for other presenters. However, owing to the limited space, the choir required a relatively unique microphone system to serve their needs. Housed in compact metal boxes with sealed covers, four Servoreelers SRL-8 condenser microphones have been

installed above the choir position. From these metal enclosures, the four microphones can be lowered into position as required by a switch-controlled motorised mechanism.

A Yamaha TF5 36-channel digital console is positioned at the side on the upper balcony during the services, so as to enable media technology officer C L Lun and the other members of the PA crew a reasonably good monitoring position. 'It's an old church and so we haven't got the space to create a customised built-in control

overspill congregations and separate events. This additional speaker zone can be activated from a customised wall-mounted switch when required.

'This was quite challenging as we only had three weeks in which to complete the works,' explains Concept Systems Technologies GM, Gerald Fong. 'As is normal with most churches, we only had five days between weekend services, so we had to clean up each time and take all our equipment away.'

Mr Lun is happy with the results.



The upstairs video control position

area within the pews,' explains Mr Lun. 'Thankfully, we can mix easily using a wireless tablet with the Yamaha Stagemix App.'

Inside the church, new cabling was routed through existing conduits to a new facility panel to the right of the stage. Outdoors, 12 EV Evid 6.2T speakers, powered by two CPS4.5 amplifiers, have been added for

'We kept adding elements to the pre-existing system over the years and it showed. Concept Systems Technologies completely overhauled it within a tight time frame and, also within our budget. The audio quality for both speech and music has been significantly enhanced.'

www.concept-systems.com.sg

So all may hear

KOREA: The Presbyterian Church of the Lord in Songpa-gu has a congregation of approximately 2,000. The Seoul-based church recently installed a new sound solution to reinforce sermons with uniform coverage throughout the multi-tiered sanctuary.

The church opted for a TW Audio solution and turned to the manufacturer's South Korean distributor, Star Networks, to complete the design and installation. As there were no architectural drawings or blueprints of the sanctuary available, the Star Networks team measured the entire space before building a CAD file. The file was then used to run an EASE simulation and produce the system design.

The installed solution comprises



The Presbyterian Church of the Lord has a congregation of 2,000

an array flown on either side of the worship space, each consisting of nine Vera10 loudspeakers and a

pair of L24s. Handling the lows are four B18 subwoofers, while four M8s serve as front-fills and monitoring

is delivered by four C12s and two C15s. To ensure coverage under the balconies, six M6 cabinets are installed beneath the first floor balcony and six M8s serve as under balcony-fills below the second floor balcony. The entire solution is powered by 12 Powersoft amplifiers.

'The way the installation has been carried out guarantees a very even distribution of the sound to all the seats,' says the church's sound engineer, Jang. 'It is a very fine sound the system provides. The speech of the pastor is very clear and defined. Vera10 has a clean and delicate sound, which is loud enough to reproduce the band's dynamics as well. We are very happy with the TW Audio system.'

www.twaudio.de